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EXAMINER	
HOSSAIN, TANIM M	

ART UNIT	PAPER NUMBER
2145	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/871,119	DAVIE ET AL.	
	Examiner	Art Unit	
	Tanim Hossain	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 10, 11, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awadallah (U.S. 6,449,251) in view of Cisco Systems Incorporated (VoIP Call Admission Control Using RSVP).

As per claim 1, Awadallah teaches a network device for use in a computer network carrying network traffic, the network comprising: a traffic scheduler having one or more resources for use in forwarding network traffic received at the device at different rates (column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45); a classification engine configured to identify received network traffic based upon pre-defined criteria (column 4, lines 25-33); and a resource reservation engine in communicating relationship with the traffic scheduler and the classification engine (column 4, lines 35-40; where the guaranteed bandwidth constitutes the existence of a resource reservation engine in communication with the router and classification engine). Awadallah does not specifically teach the reservation of resources for a traffic flow, without allowing immediate access to the resources. Cisco systems teaches the allocation by the resource reservation engine of one or more resources to the given traffic flow, but without

making the allocated resources available to the given traffic flow, in response to a first request to reserve resources for a given traffic flow (page 1, lines 19-21; where the assurance that the resource reservation is established in both directions before moving to the next phase of accessing the resources, constitutes the holding of resources if reserved for only one traffic flow). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Cisco Systems in the system of Awadallah, because they are both from the same field of endeavor, namely the efficient routing of resources for network sessions. The motivation for combining the teachings lies in the fact that Cisco Systems' teaching adds further efficiency to Awadallah's invention in the event that only one traffic flow has resources allocated for it, and thus would minimize wasted resources by not allowing access to the resources in this case, since a one-sided traffic flow would be useless.

As per claim 2, Awadallah-Cisco teaches the network device of claim 1 wherein, in response to a second request to reserve resources, the resource reservation engine makes the one or more previously allocated resources available to the given traffic flow (Cisco: page 1, lines 19-21; where the moving to the alerting phase constitutes making the resources available to the traffic flows).

As per claim 10, Awadallah-Cisco teaches that in a computer network having a plurality of intermediate network devices having one or more resources for use in forwarding network traffic, a method for providing end-to-end resource reservations along a route between two or more entities, the method comprising the steps of: receiving a first resource reservation message at a given intermediate network device disposed along the network route, the first resource reservation message identifying a traffic flow between the two or more entities requesting a

reservation of resources (Awadallah: column 5, lines 25-52); in response to receiving the first resource reservation message, allocating one or more of the device's resources for use in forwarding network traffic between the two or more entities (Awadallah: column 5, lines 53-56); and withholding the allocated resources from being applied to the traffic flow between the two or more entities (Cisco: page 1, lines 19-21). Motivations to combine teachings are discussed in the treatment of claim 1.

As per claim 11, Awadallah-Cisco teaches the method of claim 10 further comprising the step of receiving a second resource reservation message for the traffic flow between the two or more entities (Awadallah: column 5, lines 25-52); and in response to receiving the second resource reservation message, making the allocated resources available for use in forwarding the traffic flow between the two or more entities (Cisco: page 1, lines 19-21).

As per claim 16, Awadallah-Cisco teaches a method for providing resource reservations along a route through a computer network between two or more entities, the method comprising the steps of: generating a first resource reservation message identifying a traffic flow and requesting a reservation of resources (Awadallah: column 5, lines 25-52), but does not specifically teach the message to include a reservation flag, where the flag is able to assert that resources will be allocated but not made available to the traffic flow. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation. The use of flags used to alert the devices of certain states is well known in the art (as in Chiu, paragraph 74). The motivation for adding this functionality lies in the fact that the network device must "know" that a second request for resources has not been made, preventing the flow

from proceeding to making the resources available, and thus there exists an obvious need for flags to alert the system of this.

As per claim 17, Awadallah-Cisco teach the method of claim 16 on the basis of obviousness, further comprising the steps of generating a second resource reservation message identifying the traffic flow (Awadallah: column 5, lines 25-52), but does not specifically teach the existence of a flag in the message such that the existence and disabling of the flag governs that the allocated resources will be made available for application to the traffic flow. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation, as the use of flags used to alert the devices of certain states is well known in the art (as in Chiu, paragraph 74). The motivation for adding this functionality lies in the fact that the network device must "know" that a second request for resources has been made, and the flow can proceed to making the resources available, and thus there exists an obvious need for flags to alert the system of this.

As per claim 18, Awadallah-Cisco teaches the network device of claim 2, further comprising: a timer to measure a predetermined time period, wherein the resource reservation engine discards the resources if the second reservation message is not received prior to expiration of the predetermined time period (Cisco: page 2, lines 1-3).

Claims 5, 6, 8, 9, 13, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awadallah (U.S. 6,449,251) in view of Cisco Systems Incorporated (VoIP Call Admission Control Using RSVP), in further view of Chiu (U.S. 6,744,767).

As per claim 5, Awadallah-Cisco-Chiu teaches the network device of claim 2, wherein: the resource reservation engine utilizes the Resource Reservation Protocol (RSVP) specification standard (Cisco: page 1, lines 16-23); and the first and second reservation requests are modified RSVP Reservation messages (Cisco: page 2, where the existence of the RSVP Reservation messages is obvious, based on the fact that communications between routers and calls are accomplished through the RSVP standard). All motivations to combine teachings are treated in the discussion of claim 1.

As per claim 6, Awadallah-Cisco-Chiu teaches the network device of claim 5, but does not specifically teach the use of flags to signify whether two reservation requests are made. It would have been obvious to one of ordinary skill in the art at the time of the invention to include the limitation of alerting the network device that two reservation requests are made, such that the resources can then be rendered available. The use of flags used to alert the devices of certain states is well known in the art (as in Chiu, paragraph 74). The motivation for adding this functionality lies in the fact that the network device must "know" that a second request for resources has been made, and the flow can proceed to making the resources available, and thus there exists an obvious need for flags to alert the system of this.

As per claim 8, Awadallah-Cisco-Chiu teaches the intermediate network device of claim 4, wherein packets corresponding to the given traffic flow are forwarded by the device in a best efforts manner after receipt of the first request and prior to receipt of the second request (Awadallah: column 4, lines 38-41).

As per claim 9, Awadallah-Cisco-Chiu teaches the network device of claim 8 wherein packets corresponding to the given traffic flow are forwarded with the one or more allocated resources after the receipt of the second request (Awadallah: column 5, lines 53-56).

As per claim 13, Awadallah-Cisco-Chiu teaches the method of claim 11, wherein the first and second resource reservation messages are modified RSVP Reservation messages (Cisco: page 2, where the existence of the RSVP Reservation messages is obvious, based on the fact that communications between routers and calls are accomplished through the RSVP standard).

As per claim 15, Awadallah-Cisco-Chiu teaches the method of claim 11, but does not specifically teach the situation in which the steps of allocating resources, withholding resources, and making allocated resources available are performed at each intermediate network device disposed along the route between the two or more entities. It would have been obvious to one of ordinary skill in the art at the time of the invention to include this limitation, as the enablement of all components in a system to possess a certain characteristic is not patentably distinct.

Claims 19-29, 31, 32, 35, 36, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awadallah (U.S. 6,449,251) in view of Cisco Systems Incorporated (VoIP Call Admission Control Using RSVP), in further view of Jappila (RSVP – Nokia Telecommunications).

As per claim 19, Awadallah-Cisco teaches a router with means of identifying traffic flow requesting a reservation of resources (Cisco: page 1, lines 15-22, Awadallah: column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45); allocating resources between two or more entities, but not making use of the them (Cisco: page 1, lines 15-22, Awadallah: column 3, line

61 – column 4, line 11; column 7, lines 7-10, 38-45); and means for making available the resources in response to a second resource reservation request (Cisco: page 1, lines 15-22, Awadallah: column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45). Awadallah-Cisco does not specifically teach the use of messages to achieve this end. Jappila teaches the use of Resv and other RSVP messages (page 2) for use in allocating resources. It would have obvious to one of ordinary skill in the art at the time of the invention to include the use of messages to achieve resource allocation as taught by Jappila in the system of Awadallah-Cisco. The motivation for doing so lies in the fact that using messages would provide a good indicator of which routers need resources reserved. All inventions are of the same field of endeavor, namely the efficient time-sensitive communication through a network.

Claim 20 is rejected on the same basis as claim 19.

As per claim 21, Awadallah-Cisco-Jappila teaches a method for operating a router, comprising: generating a first resource reservation message identifying a traffic flow for which a resource reservation is requested along a network path between two entities; (Jappila: page 2); and indicating by the first resource reservation message that resources within the network are requested to be allocated, but not made available to the identified traffic flow (Cisco: page 1, lines 15-22).

As per claim 22, Awadallah-Cisco-Jappila teaches the method of claim 21, further comprising: generating a second resource reservation message identifying the traffic flow; and indicating by the second resource reservation message that the allocated resources are to be made available for application to the identified traffic flow (Cisco: page 1, lines 15-22; Jappila: page 2).

As per claim 23, Awadallah-Cisco-Jappila teaches the method of claim 22, further comprising: discarding the resources upon expiration of a predetermined time period, if the second reservation message is not received prior to expiration of the predetermined time period (Cisco: page 2, lines 1-3).

As per claim 24, Awadallah-Cisco-Jappila teaches a router comprising: means for generating a first resource reservation message identifying a traffic flow for which a resource reservation is requested along a network path between two entities (Jappila: page 2); and means for indicating the first resource reservation message that resources within the network are requested to be allocated, but not made available to the identified traffic flow (Cisco: page 1, lines 15-22).

As per claim 25, Awadallah-Cisco-Jappila teaches the router of claim 24 further comprising: means for generating a second resource reservation message identifying the traffic flow (Jappila: page 2); and means for indicating by the second resource reservation message that the allocated resources are to be made available for application to the identified traffic flow (Cisco: page 1, lines 15-22; Jappila: page 2).

As per claim 26, Awadallah-Cisco-Jappila teaches the router of claim 25, further comprising: means for discarding the resources upon expiration of a predetermined time period, if the second reservation message is not received prior to expiration of the predetermined time period (Cisco: page 2, lines 1-3).

As per claim 27, Awadallah-Cisco-Jappila teaches a computer readable media, comprising: the computer readable media having information written thereon, the information having instructions for execution on a processor for the practice of a method for providing

resource reservations along a route between two or more entities, the method having the steps of generating a first resource reservation message identifying a traffic flow to request a reservation of resources in a network between two or more entities (Jappila: page 2); and indicating by the first resource reservation message identifying a traffic flow to request a reservation of resources in a network between two or more entities (Jappila: page 2); and indicating by the first resource reservation message that resources within the network will be allocated, but not made available to the identified traffic flow (Cisco: page 1, lines 15-22).

As per claim 28, Awadallah-Cisco-Jappila teaches a system to establish a voice connection through a computer network, comprising: a destination voice agent to send a first resource reservation message indicating an address of a source voice agent (Cisco: page 1, lines 15-22; Awadallah: column 1, lines 39-49); a first router receiving the first resource reservation message, the first router determining a first hop of a route to the destination voice agent (Awadallah: column 5, lines 52-67); a plurality of intermediate routers to establish a path through the network between the source voice agent and the destination voice agent (Jappila: page 2); and a last router connected to a destination voice agent, wherein the first router, the plurality of intermediate routers, and the last router, in response to the first resource reservation message, allocate resources to a traffic flow from the source voice agent to the destination voice agent, but do not make available the resources to the traffic flow, and the destination voice agent transmits a second resource reservation message to the source voice agent, the second resource reservation message making available the allocated resources to the traffic flow (Jappila: page 2, Cisco: page 1, lines 15-22).

As per claim 29, Awadallah-Cisco-Jappila teaches the system of claim 28 further comprising: a timer, the timer configured to measure a predetermined time period, wherein upon expiration of the predetermined time period, the resources are discarded if the second resource reservation message is not received prior to expiration of the predetermined time period (Cisco: page 2, lines 1-3).

As per claim 31, Awadallah-Cisco-Jappila teaches a method for establishing a voice connection through a computer network, comprising: sending, by a destination voice agent, a first resource reservation message indicating an address of a source voice agent (Awadallah: column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45; Jappila: page 2; Cisco: page 1, lines 15-22); receiving by a first router, the first resource reservation message, the first router determining a first hop of a route to the destination voice agent (Awadallah: column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45; Jappila: page 2; Cisco: page 1, lines 15-22); establishing, by a plurality of intermediate routers; a path between the source voice agent and the destination voice agent, the path passing through the plurality of intermediate routers (Awadallah: column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45; Jappila: page 2; Cisco: page 1, lines 15-22); and connecting a last router to a destination voice agent, wherein the first router, the plurality of intermediate routers, and the last router, in response to the first resource reservation message, allocate resources to a traffic flow from the source voice agent to the destination voice agent, but do not make available the resources to the traffic flow, and the destination voice agent transmits a second resource reservation message to the source voice agent, the second resource reservation message making available the allocated resources to the

traffic flow (Awadallah: column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45; Jappila: page 2; Cisco: page 1, lines 15-22).

Claim 32 is rejected on the same basis as claim 29.

As per claim 35, Awadallah-Cisco-Jappila teaches a system to establish a voice connection through a computer network, comprising: means for sending, by a destination voice agent, a first resource reservation message indicating an address of a source voice agent; means for receiving, by a first router, the first resource reservation message, the first router determining a first hop of a route to the destination voice agent; means for establishing, by a plurality of intermediate routers, a path from the source voice agent to the destination voice agent, the path passing through the plurality of intermediate routers; and means for connecting a last router to a destination voice agent, wherein the first router, the plurality of intermediate routers, and the last router, in response to the first resource reservation message, allocate resources to a traffic flow from the source voice agent to the destination voice agent, but do not make available the resources to the traffic flow, and the destination voice agent transmits a second resource reservation message to the source agent, the second resource reservation message making available the allocated resources to the traffic flow (Awadallah: column 3, line 61 – column 4, line 11; column 7, lines 7-10, 38-45, column 5; lines 53-67; Jappila: page 2; Cisco: page 1, lines 15-22).

Claim 36 is rejected on the same basis as claim 32.

Claim 39 is rejected on the same basis as claim 35.

Claims 30, 34, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awadallah (U.S. 6,449,251) in view of Cisco Systems Incorporated (VoIP Call Admission Control Using RSVP), in further view of Jappila (RSVP – Nokia Telecommunications), in further view of Soumiya (U.S. 6,760,774).

As per claim 30, Awadallah-Cisco-Jappila teaches the system of claim 28, where a second resource reservation message is transmitted. Awadallah-Cisco-Jappila does not specifically teach the transmission of the message in response to the called party picking up the telephone. Soumiya teaches the transmission of RSVP messages by a second unit in response to the called party picking up the telephone (column 2, lines 5-16). It would have been obvious to one of ordinary skill in the art to transmitting a second message in response to a first message as taught by Soumiya in the system of Awadallah-Cisco-Jappila. The motivation for doing so lies in the fact that the reception of mutual messages is necessary for a phone system, for example, to function. All recipients must indicate that they are ready. All inventions are of the same field of endeavor, namely the efficient network communication.

As per claim 34, Awadallah-Cisco-Jappila teaches the method of claim 31, further comprising: transmitting, by the destination voice agent in response to a called party picking up a destination telephone, the second resource reservation message (Cisco: page 1, lines 15-22; Jappila: page 2; Soumiya: column 2, lines 5-16).

Claim 38 is rejected on the same basis as claim 34.

Response to Arguments

Applicant's arguments filed on July 5, 2005 have fully been considered, but are not persuasive.

a. Applicant asserts that none of the cited prior art teaches the allocation of resources based on a user request, and are not immediately made available. Examiner respectfully disagrees with this assertion. As stated previously, in the Cisco document, the step of allocating resources takes place when the bandwidth reservation is established. The Cisco document states that this allocation must occur in both directions before a call moves to the ringing phase. The establishment of availability takes place when the ringing phase takes place, and the phone is answered. Only then are the resources are available to be used. Before this point, the resources may be allocated and reserved, but if these resources are not used for whatever reason, then they are not available. Indeed, the Cisco document explicitly states that no ringing takes place until reservation takes place in both directions, which constitutes the allocation, but withholding of resources, when a one-way request is performed. When the resources are reserved in two-way, i.e. both directions, then the ringing takes place, which then makes the resources available to the users. Whether Cisco discloses the conventional RSVP protocol is not relevant, as the claimed elements in question are taught in the document.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanim Hossain whose telephone number is 571/272-3881. The examiner can normally be reached on 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571/272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tanim Hossain
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